

# Towards a centralized Grid Speedometer

## Monitor the distributed CMS infrastructure with Site Status Board

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Given the distributed nature of the grid and the way CPU resources are pledged and shared around the globe, Virtual Organizations are facing the challenge to efficiently monitor the use of these resources.

CMS production team: "We need a central place to monitor if we are using all our resources or even more, and help us debug problems if we are not utilizing all of the resources."

Hey, I can do that, just provide me the data you want to monitor (in text or JSON format)

SSB



Site Name	GlideIn Alarm	Instant Alarm	8h Alarm	24h Alarm	Pending jobs	Running jobs	Overall slots	Prod Pledged slots	Prod status	Run Jobs divided by Pledge	TopologyMaintenances	Avg 24h Pending jobs	Avg 24h Running jobs	avg 24h app proc jobSuccess
T2_AT_Vienna	OK	OK	ALARM	WARNING	21	117	700	212	on	55%	1 SRMV2 - 1 CREAM-CE	5	79	95
T2_CH_CSCS	OK	ALARM	ALARM	ALARM	54	40	520	260	on	19%	OUTAGE SCHEDULED L14 CREAM-CE down	12	58	96
T2_FR_CCIN2P3	OK	OK	WARNING	WARNING	45	617	1310	655	on	94%	1 SRMV2 - 1 CREAM-CE	16	217	97
T2_FR_GRIF_JRFU	OK	ALARM	ALARM	ALARM	23	83	470	235	on	35%	1 SRMV2 - 3 CREAM-CE	5	63	95
T2_FR_GRIF_LLX	OK	ALARM	ALARM	ALARM	99	93	800	400	on	23%	1 SRMV2 - 1 CREAM-CE	22	57	95
T2_FR_IPHC	OK	ALARM	ALARM	ALARM	118	17	800	400	on	4%	OUTAGE SCHEDULED L1/1 CREAM-CE down	22	48	95
T2_PT_NCG_Lisbon	OK	ALARM	ALARM	ALARM	91	12	400	200	on	6%	1 SRMV2 - 1 CREAM-CE	23	3	92
T2_UK_London_Brunel	OK	ALARM	WARNING	OK	99	178	532	266	on	67%	1 SRMV2 - 3 CREAM-CE	22	132	97
T2_UK_London_IC	OK	ALARM	ALARM	ALARM	298	206	3600	1200	on	17%	1 SRMV2 - 1 CREAM-CE - SRV - 1	65	188	98
T2_UK_SGhd_RALPP	OK	ALARM	ALARM	ALARM	223	242	1200	600	on	40%	1 SRMV2 - 3 CREAM-CE	44	148	97
Summary T2	n/a	n/a	n/a	n/a	1071	1614	10332	n/a	n/a	n/a	n/a	n/a	n/a	n/a

**metric** : measurement of site performance or result of functional test  
 The Site Status Board solution : a highly customizable and easy to configure monitoring tool that is a container for metrics and can provide their visualization (both current overview and evaluation of historical data)

ATLAS CMS Other communities

Virtual Organizations decide what data to monitor and publish it on the web



Through well defined interface

**SSB**

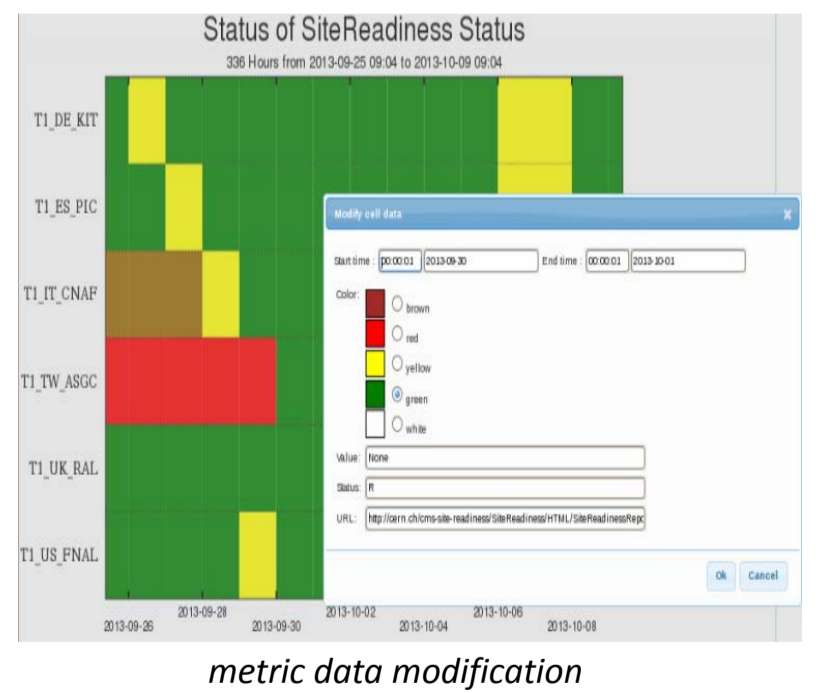
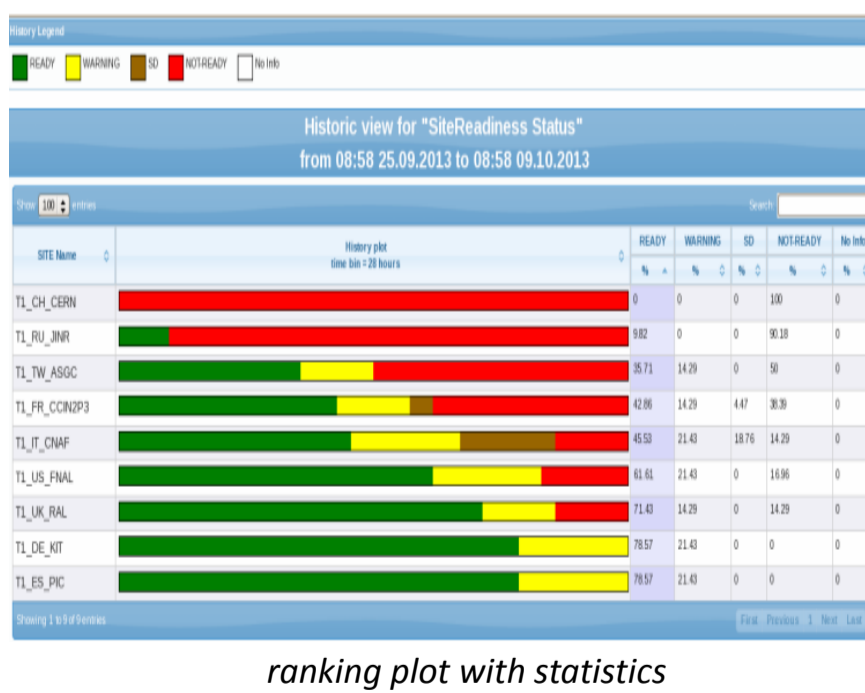
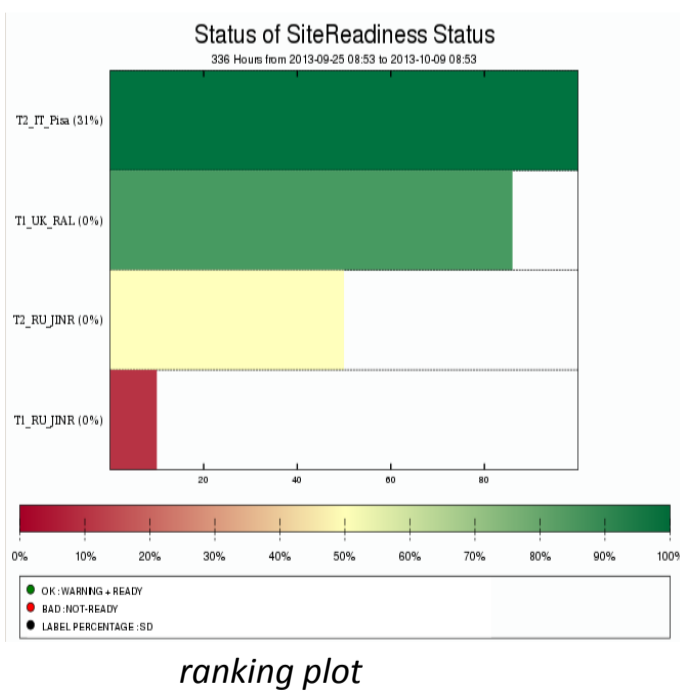
- Collect data
- Store and aggregate
- Visualize
- Notifications

SAM tests   Downtimes   Text   Site Usage

Condor/glideinWMS   PhEDEx   other collectors

**DB**

- aggregation - store only status changes
- data compression - configure which data to compress and how
- current status and historical data
- plenty of customizable plots, statistics, ranking plots
- client side caching of data - no DB call if requested data was previously loaded
- metric data modification from the UI
- alarms to site responsible on status change
- alarms to data providers when source of data is not available



For more information:  
<https://twiki.cern.ch/twiki/bin/view/ArdaGrid/SiteStatusBoard>  
 Contact: [dashboard-support.cern.ch](mailto:dashboard-support.cern.ch)

